A review of the evidence related to the impacts of, and interventions for, workplace bullying in the Construction Industry

A report conducted for MATES in Construction (Queensland)

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Executive summary

MATES in Construction (Queensland) commissioned research to examine the links between positive workplace health and safety culture and mental health and suicide risk including the impact of bullying on workplace physical and mental health and safety in the construction industry. Researchers from Central Queensland University co-designed a proposal with MATES in Construction (Queensland) that focussed on bullying as a psychological hazard. The proposal involved two activities: a systematic review of individual and organisational impacts of workplace bullying; and, a systematic review of workplace bullying interventions. Where possible, the reviews were focussed on evidence related to the construction and mining industries.

According to the Fair Work Act Section 789FD, workplace bullying occurs when an individual or group of individuals repeatedly behaves unreasonably towards a worker or a group of workers at work AND that behaviour creates a risk to health and safety. Depending on the nature and context of the conduct, bullying behaviours can include: the making of vexatious allegations against a worker; spreading rude and/or inaccurate rumours about an individual, and, conducting an investigation in a grossly unfair manner.

In the course of a few decades, workplace bullying has moved from a being a taboo subject in organisational life and a non-existent topic in the scientific literature, to becoming a well-established and highly recognised social stressor in both research and in legislation. As a result, the evidence regarding workplace bullying is improving.

The global prevalence of workplace bullying has been estimated at 15%. Results from the Australian Workplace Barometer project suggest that up to 10% of Australian workers had experienced bullying in the past six months with large variations across occupations. A recent study of Australian FIFO workers reported prevalence rates of workplace bullying as high as 56%.

The review of the impacts of workplace bullying identified 24 peer-reviewed studies with 3 focussed specifically on the construction or mining industry. The review of workplace bullying interventions identified 20 peer-reviewed studies. Several unpublished reports were also identified and provided useful insights into the impacts of, and interventions for, workplace bullying.

The evidence from the literature is clear, workplace bullying has a significant impact on employees and employers and may lead to physical and mental health concerns, lower productivity, costly workers' compensation claims or legal action, and damage to the reputation of the business. The economic cost of workplace bullying to businesses has been estimated at between $17 billion and $36 billion per annum.

Workplace bullying is a workplace hazard and requires organisational and community leadership to reduce incidence and impact. Strategies for the prevention and management of workplace bullying are typically categorised as primary, secondary, or tertiary. Primary interventions aim to prevent workplace bullying before it ever occurs. Secondary interventions aim to reduce the impact of bullying when it has already occurred. Tertiary interventions aim to reduce the impact of the lasting effects of bullying. The most effective strategies tend to be complementary rather than exclusive.

Safe Work Australia have developed several resources directly related to bullying in the workforce and suggest that the risk of workplace bullying can be minimised by taking a pro-active approach that involves early identification of unreasonable behaviour and situations likely to increase the risk of workplace bullying occurring; implementing control measures to manage the risks, and, monitoring and reviewing the effectiveness of the control measures.

Based on the findings from the reviews and building on the existing MATES activities and research projects, several recommendations are proposed.

- Use the Australian Building and Construction industry blueprint as a platform to leverage funds to develop products, services or processes related to workplace bullying that will help the industry engage in the blueprint and promote mentally healthier workplaces.
- Undertake a comprehensive assessment of the economic costs of workplace bullying to the building and construction industry.
- Develop a better understanding of the prevalence of bullying in the building and construction industry by adding the Negative Acts Questionnaire (Revised) to all MATES in Construction training programs, case management and, where appropriate, referral agencies.

- Develop, implement and evaluate a purposely designed survey to better understand the prevalence of bullying, the causes of bullying as well as the role of attitudes and processes within the building and construction industry.

- Develop, implement and evaluate an industry-wide onsite intervention program focusing on supervisors, trade workers and apprentices to raise awareness of bullying as an issue and highlight the negative consequences of bullying in the industry – this could be in the form of 'Ambassador' model intervention approach, in which respected workplace leaders are put in place to coordinate the approaches to bullying and initiate and strengthen workplace culture and social support that reduce the prevalence of bullying.

- Conduct a comprehensive data linkage study to examine the impact of MATES in Construction in reducing the incidence of workers compensation claims and suicidal behaviour related to workplace bullying.

- Undertake a return on investment analysis of workplace interventions to reduce the incidence of bullying, workers compensation claims and suicidal behaviour among building and construction industry workers.

Background

MATES in Construction (Queensland) commissioned research to examine the links between positive workplace health and safety culture and mental health and suicide risk including the impact of bullying on workplace physical and mental health and safety in the construction industry.

Researchers from Central Queensland University developed a proposal in consultation with MATES in Construction (Queensland) that focussed on bullying as a psychological hazard that is a risk to health and safety. The proposal outlined two key activities:

1. To conduct a systematic review of individual and organisational impacts of workplace bullying relevant to the construction and mining industry; and,
2. To conduct a systematic review of workplace bullying interventions relevant to the construction and mining industry.

The objective of this research is to build on existing MATES activities and research projects, to inform the industry and challenge the status quo as a positive influence for change. There is also interest from the National Board of MATES in Construction to potentially use the findings of these reviews to develop an Industry led application for a Cooperative Research Centre project to address workplace bullying in the construction industry.

Introduction

According to the Fair Work Act Section 789FD workplace bullying occurs when:

- An individual or group of individuals repeatedly behaves unreasonably towards a worker or a group of workers at work;
  AND,
- That behaviour creates a risk to health and safety[1].

Depending on the nature and context of the conduct, bullying behaviours can include:

- The making of vexatious allegations against a worker;
- Spreading rude and/or inaccurate rumours about an individual, and,
- Conducting an investigation in a grossly unfair manner.

In Amie Mac v Bank of Queensland Limited and Others[2], the Fair Work Commission indicated that some of the features which might be expected to be found in a course of repeated unreasonable behaviour constituting bullying at work were:

- intimidation, coercion, threats, humiliation, shouting, sarcasm, victimisation, terrorising, singling-out, malicious pranks, physical abuse, verbal abuse, emotional abuse, belittling, bad faith, harassment, conspiracy to harm, ganging-up, isolation, freezing-out, ostracism, innuendo, rumour-mongering, disrespect, mobbing, mocking, victim-blaming and discrimination.

The following behaviours could also be considered as bullying, based on cases heard in other jurisdictions:

- aggressive and intimidating conduct, belittling or humiliating comments, victimization, spreading malicious rumours, practical jokes or initiation, exclusion from work-related events and unreasonable work expectations[1].

Einarsen et al (2009) suggest employees encounter three patterns of bullying behaviours: work-related, person-related, and physically intimidating.

- *Work-related* bullying involves manipulation of information and opinions, task deadline, monitoring of work, and workload.
- *Person-related* bullying includes humiliation, trivialisation, gossips and rumours, being ignored, insults, offensive remarks, reminders of errors and mistakes, and persistent criticism.
- *Physically intimidating* bullying consists of shouting, anger, finger-pointing, invasion of personal space, shoving, blocking one's way, and threats of physical violence or actual abuse.

Several scientific reviews have been undertaken on workplace bullying.

Moayed et al (2006) conducted a systematic review of risk factors and outcomes[3]. The authors note that initial studies examining workplace bullying began in Scandinavian countries in the 1990s. Moayed et al (2006) included 7 studies: 2 examined workplace factors and bullying; and, 5 investigated the outcomes of workplace bullying. Based on the findings from these studies, the authors develop a model for workplace bullying (Appendix 1). The model shows that the outcomes of bullying can lead to the escalation of organisational problems and conflicts. These problems incur costs - lost

work days due to absenteeism, increased health insurance and workers' compensation, lower productivity and retraining costs. The model suggests that workplace factors are potential risk factors for bullying, but without studying confounders, such as a bully's personality and drug or alcohol abuse, results cannot be generalised. The authors suggest that further research is required that standardises the definition and assessment of workplace bullying so results can be compared across different cultures and professions[3].

Nielsen et al (2010) conducted a meta-analysis of the impact of methodological moderators on prevalence rates of workplace bullying[4]. The authors found that the two most common approaches to measure workplace bullying are self-labelling method or behavioural experience method. For self-labelling methods, respondents are provided a definition of bullying and asked if they have been subjected to it, usually over a time span of the past 6 months. For behavioural experience approaches, respondents are provided a list of negative behaviours and asked which, if any, they have experienced. The Negative Acts Questionnaire-Revised[5] is the most commonly used behavioural approach. Appendix 2 provides an example of these approaches. In their systematic review, Nielsen et al (2010) included 102 prevalence estimates of bullying from 86 independent studies (N=130;973). They reported a mean prevalence rate of workplace bullying of 14.6%, with lower estimates for studies using self-labelling methods[4]. The findings show that at least 1 out of 10 workers, and maybe as many as 1 out of 5, are exposed to bullying in their workplaces[4].

Nielsen and Einarsen (2012) conducted meta-analytic review of outcomes of exposure to workplace bullying[6]. The authors categorised studies as cross-sectional or longitudinal. The findings from cross-sectional studies (66 studies, N=77,721) show that exposure to bullying is associated with both job-related and health- and well-being-related outcomes, such as mental and physical health problems, symptoms of post-traumatic stress, burnout, increased intentions to leave, and reduced job satisfaction and organizational commitment. The findings from longitudinal studies (13 studies, N=62,916) show that workplace bullying influenced mental health problems and absenteeism over time. Using the results from the reviews, the authors develop a theoretical model of the possible relationships between the outcomes of workplace bullying (Appendix 3). The authors recommend that future research should use longitudinal designs, preferably with three or more measurements points; and, include

more objective outcome data, such as registered sick leave in order to reduce the risk of self-report bias[6].

Verkui et al (2015) conducted a meta-analysis on workplace bullying and mental health[7]. By pooling the available cross-sectional and longitudinal data (70 studies, N=170.233), the authors demonstrate that workplace bullying is positively related to depressive, anxiety and post-traumatic stress disorder symptoms and stress-related psychological complaints[7].

Nielsen et al (2016) conducted a systematic review and meta-analysis of research on the association between workplace bullying and sickness absence[8]. The authors' only included studies based on prospective design or registry data on sickness absence. Seventeen primary studies were included in the review with 16 originating from the Nordic countries. All but one study found that exposure to workplace bullying was associated with increased risk of sickness absence with a meta-analysis showing that exposure to bullying increased the risk of sickness absence (odds ratio 1.58, 95% confidence interval 1.39–1.79). The authors conclude that the findings provide robust evidence for exposure to workplace bullying as an antecedent to sickness absence[8].

Leach et al (2017) conducted a systematic review of the association between workplace bullying and suicide ideation/thoughts and behaviour[9]. Eight studies were included in the review and all reported an association of a significant, positive relationship between workplace bullying and suicidal ideation. There was only one cross-sectional study which reported the association specifically with suicidal attempts, demonstrating the lack of available evidence about suicidal behaviour. The authors suggest that further longitudinal, population-based research, adjusting for potential covariates (within and outside the workplace), is needed to determine the level of risk that workplace bullying independently contributes to suicidal ideation and behaviour[9].

A systematic review of the impacts of workplace bullying

Method

A systematic literature search was conducted using the databases: Google Scholar (titles), ProQuest Central (titles + abstracts), PubMed (titles + abstracts), and Sage (titles + abstracts). Searches were performed in March and April 2020 using the search

terms: workplace bully* AND (impact OR outcome) and associated mesh terms. No publication date restrictions were set for the searches.

<u>Inclusion and exclusion criteria</u>

Articles were included that were relevant to the construction or mining industry, included samples with adult populations, focussed on workplace bulling and an outcome/impact at the individual or organisational level, peer-reviewed, and written in English. For our purposes of the review, workplace bullying included verbal, physical, social, psychological and/or cyber-bullying. Articles were included with samples of adults in full-time, part-time, or apprenticeship employment. Articles were excluded if they were conducted in school settings, written in languages other than English, or did not specifically refer to outcomes or impacts of bullying. There were no exclusion criteria for study design; qualitative and quantitative research were included. Articles were excluded, however, if they only reported case studies or reviews. An initial screening by title and abstract and a secondary screening by full text was conducted independently by two researchers. When discrepancies arose between screeners, discussions were conducted between the reviewers and a moderator until a decision was agreed upon.

<u>Data extraction</u>

The data extracted from each article were first author, year of publication, country, study design, sample characteristics, measurement of bullying, prevalence of bullying, individual impacts and organisational impacts, if reported. No risk of quality or bias assessment was conducted.

Results

The search resulted in 267 articles after duplicates were removed. A flow diagram of the search and inclusion process is provided in Figure 1. Following the initial screening by title, 236 articles were excluded, and 31 articles were included for full-text screening. Following the full-text screening, 24 articles were included in the review. Most articles were excluded because they did not focus on workplace bullying or did not include an outcome or impact at the individual or organisational level. Although very few of the studies related to the construction or mining industry, they all canvassed issues pertinent to the impact of bullying and thereby were considered potentially relevant to the construction and mining industry.

Figure 1: Flow diagram of review search
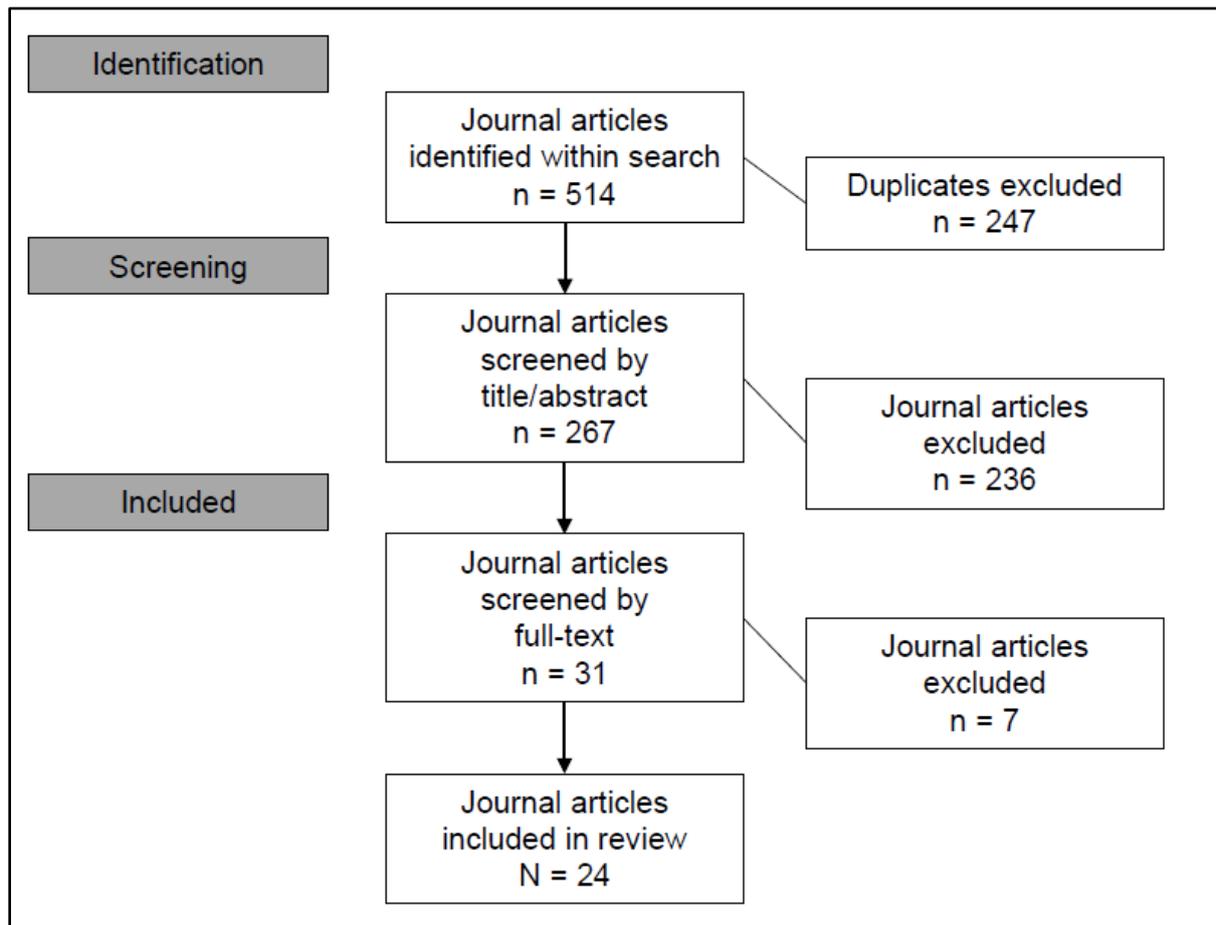
Study design and country

Data extracted from the review are presented in Table 1. Notably, the studies reported large samples (*N's* ranged from 10 to 10,627) from a wide variety of countries including Norway (N=6)[10-15], Australia (N=5)[16-20], Denmark (N=4)[21-24], Sweden (N=2)[25, 26], the United States of America (n = 2)[27, 28], United Kingdom (N=1)[29], France (N=1)[30], Italy (N=1)[31], India (N=1)[32], and Spain (N=1)[33]. It is noteworthy that half of the studies were from Scandinavian countries (N=12) that generally used large representative samples of the entire workforce. Eleven studies used a prospective survey design with follow-up time frames ranging from 2 weeks to 5 years; 11 studies using a cross-sectional design; and, 2 Australian studies used a longitudinal cohort study[16, 20].

Measure of bullying

Most studies relied on self-reported measures of workplace bullying using either: self-labelling methods (N=9), behavioural evidence approaches (N=9), or both (N=4). Two

Australian studies of building and construction industry apprentices did not report prevalence as no measurement instrument was used[17, 19].

Prevalence of bullying

Prevalence of workplace bullying ranged significantly from 4%[15] to 56%[18] depending on the time frame of the measure (e.g., lifetime vs last 6 months) and whether the bullying measure was the self-labelling method or behavioural evidence approach. Higher prevalence rates were reported when the behavioural evidence approach was used compared to the self-labelling method. An Australian study of fly in fly out workers reported the highest prevalence rates of workplace bullying at 56%[18]. Several studies reported the prevalence of workers that had witnessed bullying, ranging from 9%[26] to 43%[29].

Impact of bullying (individual v organisational)

The reported individual impacts of being subjected to bullying included increased depression and anxiety symptoms, psychological distress, poorer physical and mental quality of life, sleep difficulties, poorer job satisfaction, and higher risk of suicide or suicide ideation. Other individual outcomes reported included more use of defensive silence, less workplace friendships, lower motivation and lowered perceived importance of ethical issues. An Australian study of Fly-In, Fly-Out Australian workers reported that exposure to bullying led to a threefold increase in the likelihood of reporting increased suicide risk and 2.5 times increased likelihood of clinical depression[18]. Two other studies supported the finding related to suicidal ideation[15, 20].

Organisational level impacts included higher rates of absenteeism, sickness presenteeism, higher turnover intention and lower innovation. One study found that workplace bullying doubles long term sickness absence for women, equivalent to two weeks per year[22]. Another study found that frequent exposure to workplace bullying was associated with 8 or more days of sickness presenteeism (i.e., working while ill) in the preceding year[21]. Other studies noted that staff turnover necessarily involves additional costs to the organisation through staff recruitment and training[12, 13, 19, 24, 27]. Fattori et al (2015) investigated the relationship between workplace bullying and productivity loss[31] among subjects with chronic medical conditions. For those bullied, the mean average weekly full-time equivalent sick hours were 6.6. Fattori et al (2015) estimates that the adjusted marginal overall productivity cost of workplace bullying

ranged from 13.9% to 17.4% with the potential economic impact of preventive or therapeutic interventions addressing workplace bullying on yearly overall productivity loss might range from about 2010US$4,200 to $5,200 for each case prevented[31].

Table 1: Included peer-reviewed studies that have examined impacts of workplace bullying

Author (year)	Country	Study design	Sample characteristics	Measurement approach	Prevalence of bullying	Individual impacts	Organisational impacts
Butterworth (2016)	Australia	Longitudinal cohort study	N=1,466 adults aged 52-58 years; general population	Combination self-labelling and behavioural approaches	7% currently being bullied; 23.6% had experienced workplace bullying at some time in their current workplace; 46.4% reported some experiences of workplace bullying during their working lives	Increased odds of depression and anxiety	Not reported
Carter (2013)	United Kingdom	Cross-sectional	N=2,950; staff from health care organisations	Combination self-labelling and behavioural approaches	20% of staff reported having been bullied by other staff to some degree and 43% reported having witnessed bullying in the last 6 months	More psychological distress, increased intentions to leave, lower job satisfaction	Higher rates of sickness absence; negative impacts of witnessing bullying similar to being bullied
Conway (2016)	Denmark	Prospective across 2 years	N=3,363; staff from several Danish workplaces	Self-labelling approach	9.5% had been subject to occasional bullying; 1.3% had been subject to frequent bullying	Not reported	More sickness presenteeism
Einarsen (2015)	Norway	Prospective across 5 years	N=1,613; Norwegian working population	Behavioural evidence approach	12.5% baseline and 9.2% follow-up reported exposure to workplace bullying (psychological distress was 13.4% and 11.4% baseline, follow-up respectively)	Exposure to workplace bullying was a significant predictor of mental health problems 5 years on	Not reported
Emdad (2012)	Sweden	Prospective across 2 years	N=2,563; workers from large industrial enterprises	Self-labelling approach	6.7% of females and 12.3% females had been subjected to bullying; 33% of women that had witnessed bullying developed depression (16.4% for males)	Elevated levels of depressive symptoms	Not reported
Eriksen (2016)	Denmark	Cross-sectional linked to sickness registry	N=3358; 54 organisations, 136 workplaces	Behavioural evidence approach	18% of previously bullied and 27% of always bullied individuals report being bullied in a previous workplace; 8% of previously bullied and 11% of always bullied report that they were bullied in their current workplace	Not reported	Increases sickness absence for women; greater presenteeism for men; women have more adverse long-term health; high job turnover for men
Fattori (2015)	Italy	Cross-sectional	N=1,717; people with chronic diseases	Self-labelling approach	16.3% labelled themselves as victims of bullying at work	Poorer physical and mental health related quality of life	Absenteeism and presenteeism costs

Finne (2011)	Norway	Prospective across 2 years	N=1,971; 20 organisations	Self-labelling approach	4.7% had been subject to bulling at baseline, 4.5% at follow-up	Increased mental distress; women reported more distress than men.	Not reported
Glambek (2014)	Norway	Prospective across 6 months	N=734; North Sea workers	Behavioural evidence approach	26.4% had been subject to bullying at baseline; 25.9% at follow-up	Increased levels of job insecurity and intentions to leave the job	Staff replacement costs
Hauge (2010)	Norway	Cross-sectional	N=2,539; representative sample of the Norwegian workforce	Behavioural evidence approach	Not reported	Higher depression and anxiety, lower job satisfaction	Staff replacement costs; absenteeism and presenteeism costs
Hansen (2006)	Sweden	Cross-sectional	N=437; 5 companies, 7 workplaces	Behavioural evidence approach	5% had been subject to bullying (no gender or age difference); 9% of the women and 11% of the men had witnessed bullying at work	Lower social support from co-workers and supervisors; had more symptoms of somatisation, depression, anxiety, and negative affectivity	Not reported
Hansen (2014)	Denmark	Prospective across 2 years	N=3,382; 55 workplaces	Self-labelling approach	7.8 % of women and 12.9% of men had been subject to occasional bullying and 1.2% of women and 1.8% of men had been subject to frequent bullying	Sleep difficulties; higher intake of alcohol	Not reported
Hogh (2011)	Denmark	Prospective across 2 years	N=2,154; health care workers after graduation	Self-labelling approach	9.2% reported having been bullied during the first year at work after college	Bullying related to long-term health effects and intentions to leave	Staff replacement costs
Leach (2020)	Australia	Longitudinal cohort study	N=1,488 adults aged 52-58 years; general population	Combination self-labelling and behavioural approaches	7% currently being bullied; 22.8% had experienced workplace bullying at some time in a previous workplace; 8.4% active suicide ideation	Elevated risk of suicide ideation	Not reported
Lutgen-Sandvik (2007)	United States of America	Cross-sectional	N=403; representative sample of the American workforce	Combination self-labelling and behavioural approaches	28% based on behavioural list; 9.4% based on self-labelling	More stress, poorer job satisfaction	Staff replacement costs; absenteeism and presenteeism costs
McCormack (2013)	Australia	Cross-sectional	N=10; building and construction industry apprentices	Not reported	Not reported	Risk of physical injury; verbal abuse; anxiety and depression;	

Study	Country	Design	Sample	Approach	Prevalence / Findings	Individual outcomes	Organisational outcomes
Miller (2020)	Australia	Cross-sectional	N=580; Fly-In, Fly-Out workers in the resources sector	Behavioural experience approach	28.6% experienced occasional bullying, 27.1% reported severe bullying	Higher likelihood of clinical depression, higher risk of suicide	Not reported
Niedhammer (2007)	France	Cross-sectional	N=7,694; General working population	Self-labelling approach	12-month prevalence of workplace bullying was 9% for men and 11% for women; point prevalence was 7.5% on the day of the survey for both genders	Not reported	High-risk occupations were senior government professionals and low levels of white- and blue-collar workers
Nielsen (2015)	Norway	Prospective across 5 years	N=4,500; representative sample of the Norwegian workforce	Self-labelling approach	Victimization from bullying was associated with subsequent suicidal ideation (odds ratio = 2.05; 95% confidence interval = 1.08, 3.89). Suicidal ideation was not related to subsequent victimization from workplace bullying	Higher odds of suicidal ideation	Not reported
Nielsen (2020)	Norway	Prospective (time frame unclear)	N=10,627; 96 organisations	Self-labelling approach	Not reported	Higher mental distress	More sickness absences
Rai (2017)	India	Prospective across 2 weeks	N=835; managerial employees across different organisations	Behavioural experience approach	Not reported	More defensive silence; less workplace friendship	Lower innovation in work behaviour
Riggall (2007)	Australia	Cross-sectional	N=13. building and construction industry apprentices	Not reported	Not reported	Risk of physical injury; verbal abuse; anxiety and depression; reduced motivation	Staff replacement costs; absenteeism and presenteeism costs
Rodríguez-Muñoz (2015)	Spain	Prospective across 6 months	N=348; representative sample of the Spanish workforce	Behavioural experience approach	Not reported	More anxiety, less vigour	Not reported
Valentine (2018)	United States of America	Cross-sectional	N=384; sales and business employees	Behavioural experience approach	Not reported	Higher machiavellianism; lower job satisfaction; lower perceived importance of ethical issues	Not reported

A systematic review of workplace bullying interventions

Strategies for the prevention and management of workplace bullying are typically categorised as primary, secondary, or tertiary[34].

Primary interventions aim to prevent workplace bullying before it ever occurs. This can be done by preventing factors that cause bullying, altering the organizational climate or culture, by ending behaviours that can be experienced as bullying in an early phase, and by improving resources that increase the resistance to bullying if it occurs. Examples of primary interventions are to provide employees and organisations with training on bullying, conflict prevention and management. To be able to develop effective primary interventions there is a need to identify and understand vulnerable risk groups, the causes of bullying as well as the role of attitudes and processes.

Secondary interventions aim to reduce the impact of bullying when it has already occurred. This is done by detecting the bullying as soon as possible to halt or slow its progress, by encouraging strategies to prevent recurrence, by helping those targeted to retain regular health and functioning, and by addressing and readjusting the behaviours of the bullies. To develop effective secondary interventions, knowledge about bullying as a process is required together with appropriate targeted coping mechanisms.

Tertiary interventions aim to reduce the impact of the lasting effects of bullying by helping people manage the long-term, often-complex health problems and to improve their ability to function, their quality of life and their life expectancy. Effective tertiary interventions will be dependent upon valid knowledge about health outcomes of bullying and the mechanisms that can explain the detrimental effects of bullying

Several reviews have been undertaken of workplace bullying interventions. Hodgins et al (2014) conducted a systematic review of interventions related to workplace bullying and incivility[35]. The review critically appraised 12 workplace bullying or incivility interventions (from a search of more than 5,000 records), and found 3 studies that were classified as moderate in terms of quality; only 2 were effective[36, 37] and 1 was partially effective[38]. The two effective studies rated as moderate focused on workplace incivility[36, 37]. Both involved a multi-component, six-month intervention called CREW (Civility, Respect, and Engagement in the

Workplace). CREW is a facilitator-led series of group-based exercises, designed to allow participants to explore social relationships in their work group and understand the difference between civil and uncivil communication. The intervention commences with preparatory work engaging organisation leaders and management, building a learning community of leaders and facilitators, training facilitators and communicating management buy-in to employees. The focus is on building positive, civil behaviours, respect, cooperation and conflict resolution. The CREW intervention produced a small increase in civility that translates to a 5% increase from baseline to follow-up, measured at 6 to 12 months (mean difference 0.17; 95% confidence interval 0.07 to 0.28).

Escartín (2016) conducted a review of quasi-experimental longitudinal studies on anti-bullying interventions conducted in Europe, the United States and Australia[39]. One randomised control trial and 7 quasi-experimental longitudinal studies were identified. Five of the studies were intended to minimize the incidence or perception of workplace bullying after training and education. Two other studies aimed to enhance employees' psychological health and well-being with therapy for bullying victims and training for organisational employees. Most studies reported some level of change, mostly positive, suggesting that workplace bullying interventions are more likely to affect knowledge, attitudes, and self-perceptions, but actual bullying behaviours showed much more mixed results. The randomised controlled trial study found that managers enhanced their conflict management skills but no change on the prevalence of bullying was found[40]. Escartín (2016) concludes that there is evidence supporting the effectiveness of bullying intervention in enhancing employees' awareness and knowledge of effective practices, skills, feelings of efficacy, and actual behaviours in responding to incidences of workplace bullying. However, he also notes that most studies were not theory driven, did not have a control group within their evaluation designs, relied on self-reported data, and were mainly conducted within the European context. Consequently, causal conclusion cannot be completely assured[39].

Gillen et al (2017) reviewed the effectiveness of interventions to prevent bullying in the workplace[41]. Five studies were identified; 2 interventions were classified as organisational-level; 2 as individual-level and 1 as multi-level. The organisational-level studies are the CREW studies[36, 37] noted above. One of the individual-level studies[38] and the multi-level intervention[40] were also included in the Hodgins et al (2014)

review[35] and the Escartín (2016) review[39], respectively. The other individual level intervention was conducted by McGrath et al (2010) and involved a cognitive behavioural educational intervention that was conducted with 60 employees who had a learning disability, but there was no significant change in bullying[42]. Gillen et al (2017) conclude that there are very low-quality evidence that organisational and individual interventions may prevent bullying behaviours in the workplace and suggest that we need large well-designed controlled trials of bullying prevention interventions operating on the levels of society/policy, organisation/employer, job/task and individual/job interface. Future studies should employ validated and reliable outcome measures of bullying and a minimum of 6 months follow-up[41].

Given our focus was on findings relevant to the construction or mining industry a separate search was undertaken to complement the learnings from the above reviews.

Method

A search of the peer-reviewed literature was conducted using the databases: Google Scholar (titles), ProQuest Central (titles + abstracts), PubMed (titles + abstracts), and Sage (titles + abstracts). Searches were performed in April 2020 using the search terms: workplace bully* AND (intervention OR trial OR program) and associated mesh terms. No publication date restrictions were set for the searches.

Inclusion and exclusion criteria

Given the nature of the review aim, all articles were included that were relevant to informing interventions for workplace bullying within the construction or mining industry. For our purposes of the review, workplace bullying included verbal, physical, social, psychological and/or cyber-bullying. Articles were included with samples of adults in full-time, part-time, or apprenticeship employment. Articles were excluded if they were not peer-reviewed, conducted in school settings, or written in languages other than English. There were no exclusion criteria for study design; qualitative, and quantitative research were included. An initial screening by title and abstract and a secondary screening by full text was conducted independently by two researchers. When discrepancies arose between screeners, discussions were conducted between the reviewers and a moderator until a decision was agreed upon.

<u>Data extraction</u>

The data extracted from each article were first author, year of publication, country, study design, sample characteristics, intervention and results (if reported). No risk of quality or bias assessment was conducted.

Results

The search resulted in 218 articles after duplicates were removed. A flow diagram of the search and inclusion process is provided in Figure 2. Following the initial screening by title, 107 articles were excluded, and 111 articles were included for full-text screening. Following the full-text screening, 20 articles were included in the review. Most articles were excluded because they did not focus on workplace bullying or were not relevant for informing potential interventions for workplace bullying (N=91). The results of the search provided evidence for primary interventions (N=5)[43-47], secondary interventions (N=5)[48-52], tertiary interventions (N=4)[14, 53-55] and a combination of interventions (N=6)[56-61].

<u>Figure 2</u>: Flow diagram of review search
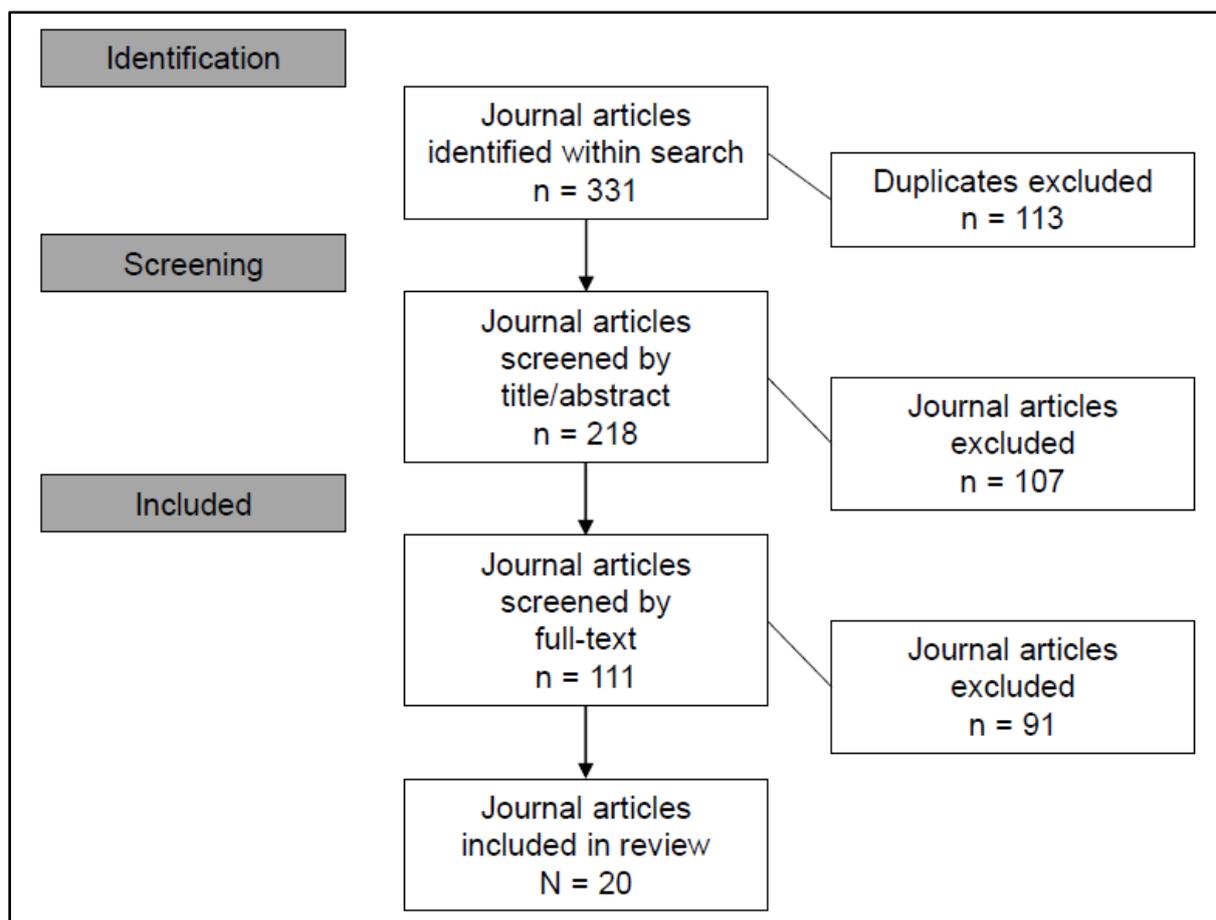
<u>Primary interventions</u>

Benmore et al (2018) implemented the The Stopit! programme to reduce bullying and undermining behaviour in hospitals in the United Kingdom[43]. The Stopit! programme involved a-half day workshop to improve working relationships by reducing undermining bullying and harassment behaviours to improve the clinical and learning environment in three areas relational (improvements in the way staff interact and interpret the behaviours of others), institutional (improvements in policies and procedures) and individual (improvements in self-reflection). The Stopit! evaluation suggested that there was some benefit and self-reported intent to change behaviour following the workshop but no evidence of institutional change[43].

Chipps and McRury (2012) implemented a quasi-experimental pilot study aimed at examining the effect of an educational program provided to nursing staff on workplace bullying[44]. The program structure was based on Einarsen's theoretical framework on predisposing factors for workplace bullying - individual, social/workplace/environmental and organisational. Interventions were designed to address each of these predisposing factors and included both education and a system for supporting participant behaviour change. After the educational program, the number of individuals who fell into the category of a target of bullying increased from 13% pre-intervention to 25% post-intervention. The authors conclude that educational programs aimed at ameliorating workplace bullying may heighten the awareness of this sometimes covert phenomenon[44].

Hutchinson (2012) draws on data from a 2008 study into workplace bullying in Australian public service organisations[45]. The study was guided by two questions: how do policy actors position workplace bullying? and, how effective are current policies in preventing workplace bullying? Hutchinson provides some interesting observations from policy experts. For example, although workplace bullying is perceived to be a very real and powerful aspect of contemporary work life, prevention remains unresolved due to the narrow definition of workplace bullying in terms of individuals, their actions, reactions and pathology. As such, current policy frameworks used for workplace bullying are unable to effectively respond to the complexity of causal elements and power relations beyond the individuals involved The author suggests that a multidisciplinary approach to understanding workplace bullying as a work and employment relations issue is a fundamental step in its prevention[45].

Lassiter et al (2018) conducted a Delphi study to gain consensus from experts on the best practices that might be taken into account when developing early bystander intervention training programs to reduce both workplace intimate partner violence and workplace bullying[46]. Three themes emerged - leadership, training and people involved in the incident. In line with these themes the authors suggest that senior management must be committed to lead the way. Training should instruct staff on how to identify bullying, when to intervene, how to get help and ensure that victims are treated in a supportive and caring manner[46].

Mikkelsen et al (2011) adopted a quasi-experimental, process-oriented research design to test the effectiveness of several interventions in two workplaces in Denmark[47]. Interventions included lectures on bullying, courses in conflict prevention and management, dialogue meetings, the distribution of pamphlets, newsletters and posters as well as steering group meetings. Results indicate that participants benefited from the interventions, in particular the dialogue meetings and the courses in conflict prevention and management[47]. Moreover, various factors stimulating or obstructing the implementation and effects of interventions were identified[47]. For example, the authors note that a participatory approach and a trustful relationship are important prerequisites for the process of acquiring essential cultural knowledge from which to develop appropriate interventions[47].

Secondary interventions

A New Zealand study by Blackwood et al (2018) conducted 34 semi-structured interviews with victims of workplace bullying to identify critical points throughout a victim's bullying experience that influence its resolution or outcome[48]. The findings are presented in the form of a Workplace Bullying Intervention Process Model that highlights the cyclical and iterative nature of the intervention process as it is experienced by victims and provides insight into why so many cases of workplace bullying go unresolved. The findings emphasise the cyclical and iterative nature of the bullying intervention process and provide further support for the focus on early identification and intervention[48].

D'Cruz et al., (2016) used an open ended questionnaire administered through Survey Monkey to explore target experiences of workplace bullying across Australia, India and Turkey among business school students with current/prior work experience[49]. The

authors reported that manifestations of etiology of, and coping with, workplace bullying were similar across all three countries. The authors found that hierarchical versus an egalitarian orientation in national culture, reflecting power distance accounts for the variation in the source of bullying behaviours. Respondents from India and Turkey reported downwards bullying compared to the downwards and horizontal bullying evident in Australia. The authors note that although similarities in workplace bullying across cultures have positive implications for the development and implementation of intervention strategies applicable to regions where little research exists overlooking fine differences renders such measures redundant. Blueprints drawn from other societies must be tailor-made for the country in question. Global calls for a uniform code of business ethics and a standard set of human resource processes and practices while guided by universal principles, must necessarily acknowledge the mandatory need for customisation to account for country (and industry) specific cultural variations[49].

Kang et al (2019) developed a cognitive rehearsal intervention for workplace bullying and examined its effects on nurses' bullying experiences and turnover intentions[50]. Cognitive rehearsal is a type of cognitive behavioural therapy that can be used as a coping strategy for bullying situations. It involves recreating a specific situation and training individuals in positive interactions or coping processes. The intervention involved developing an app to cognitively train nurses to handle bullying situations in the workplace. This application included common bullying situations and appropriate non-violent communication scenarios. The authors found that the intervention reduced nurses' person-related and work-related bullying experiences and turnover intentions but did not reduce intimidation-related bullying experiences[50]. They suggest that cognitive rehearsal be used as a personal coping measure and an institutional strategy to reduce turnover[50].

Lee et al (2019) examined the moderating role of coping strategies in the relationship between exposure to workplace bullying and job attitudes[51]. The authors adopted a stress-coping theory framework at the individual level, which casts workplace bullying as a negative stressor that motivates an individual to expend cognitive and behavioural energy in order to cope. When coping is not successful, the stress from workplace bullying continues and leads to negative consequences on affective states and attitudes. Five strategic coping behaviours of exit, voice, acquiescence, neglect, and

retribution were used to observe use of coping strategies. The sample included citizens of Singapore and the United States that answered a survey on Survey Monkey. The authors found that coping strategies play a very limited moderator role in the relationship between exposure to workplace bullying and job attitudes[51]. Instead, coping strategies directly relate to job attitudes above and beyond the exposure to workplace bullying. Findings are largely consistent with earlier empirical data showing that coping strategies have little or no moderator role in other cultural contexts[62, 63].

Rossiter (2018) investigated the moderating effects of social support (including (instrumental, emotional, supervisor, and colleague) on the link between workplace bullying and burnout[52]. The study involved 222 employees recruited from various industry sectors that completed online surveys. The authors reported that different types of bullying present different challenges to employees as they are linked to different forms of psychological distress even in the presence of social support. For example, although supervisor and senior management support seemed to be linked with some positive self-evaluation among physically intimidated employees, no type of support moderated the effects of bullying on feelings of emotional exhaustion and distancing from the job. The authors suggest that the current research may inform interventions designed to address bullying and burnout in the workplace, including those focused on raising awareness, changing the organisational culture, and supporting victims through counselling or psychotherapy[52].

Tertiary interventions

Traditional organisational anti-bullying policies have increasingly been supplemented with third-party interventions (TPIs). TPIs may be provided by mediators, counsellors or peer listeners. Mawdsley and Thirlwall (2019) conducted focus groups and interviews with members and officials of 3 large trade unions in the United Kingdom to investigate the impact of TPIs on workplace bullying[53]. The authors were interested in 3 research questions: does workplace bullying intervention involving third parties conform to the individualisation of the employment contract? do TPIs deflect attention away from underlying organisational acceptance of bullying? and, how do TPIs affect targets of workplace bullying? The authors found that TPIs individualise bullying allegations and such interventions are further characterised by impotence, injustice and lack of impartiality, serving to deflect bullying claims and exacerbate targets' suffering[53]. The authors contend that mediation and counselling should never be

provided as a substitute for thoroughly investigating bullying, as such deflection is likely to damage individuals and organisational performance[53].

Namie and Namie (2009) examined the role of psychological consultants in addressing workplace bullying involving American corporations[54]. The authors use a case study to illustrate the integration of methodologies and predictors of successful interventions. A range of strategies were used including addressing bullying behaviour, coaching designated individuals prior to policy creation and some peacemaking (moderation/mediation) within one executive team after policy writing. There were no objective outcome measures reported but the author noted the strategy had been effective. The authors' note that workplace bullying consulting is still a taboo business topic because addressing it requires a blunt self-appraisal about the organisation's role in establishing and maintaining bullying[54].

Nielsen et al (2020) examined the protective effects of supervisor, colleague, and non-work-related social support on the associations between workplace bullying, mental distress, and medically certified sickness absence[14]. A sample of 10,627 employees was recruited from 96 Norwegian organisations and asked to complete a survey with responses linked to official registry data on medically certified sickness absence for the year following the survey assessment. Social support, i.e., the process of interaction in relationships which improve coping, esteem, belonging, and competence through actual or perceived exchanges of physical and psychosocial resources is one factor that has been suggested to be beneficial about reducing the negative impact of social stressors at work. Social support consists of (i) instrumental support (getting help), (ii) information support, (iii) emotional support (empathy, sympathy), and (iv) feedback. The findings suggest that social support, and especially supervisor support, is beneficial for reducing the negative impact of workplace bullying on health and work ability of those exposed. The authors suggest that organizations should include social support in interventions targeting bullying[14].

Saam (2010) interviewed 18 German consultants who specialise in workplace bullying prevention and correction. Consultants were asked which intervention strategies they apply and for what reason and to what purpose the strategies are adopted. It was found that consultants favour conflict moderation or mediation, coaching, and/or organisation development[64]. Moderation is a clarification process to allow the parties to move beyond misunderstandings or misperceptions. Mediation refers to the

traditional conflict resolution process. Coaching develops solutions on a case-by-case basis and could include a range of support options - tactical, emotional, career development, personalized skills education and rehearsal. The organisation development approach is used to create changes in an organisation. The authors suggest consultants presented one of two views: the conflict view or the multilevel view. The consultants who favour conflict moderation or mediation conceive of bullying as a particularly escalated form of conflict. It depends on their judgement of how far the conflict has already escalated whether they apply conflict moderation or mediation. The consultants who favour coaching or organisation development conceive of bullying as a multilevel phenomenon. There is a conflict on a dyadic level between the bully and the target. The conflict, however, is embedded in the group, and the group is embedded in the organisation. The authors contend that an effective intervention strategy has to consider the dyadic as well as group and organisation levels[64].

<u>Combination interventions</u>

Studies that had multiple elements that addressed certain aspects of prevention, secondary and/or tertiary interventions were classified as combination interventions.

Blackwood et al (2013) examined the efficacy of 3 legislative approaches enacted in Australia and New Zealand to reinforce workplace bullying interventions: the rehabilitative approach of employment disputes legislation; the preventative approach of health and safety legislation; and specific legislation to criminalise workplace bullying[56].

- *Employment disputes legislation* is limited in its ability to deal with a complex phenomenon like workplace bullying where the behaviour is covert and subjective and the harm inflicted is psychological and cumulative. As the existing legislation stands, a large amount of responsibility for addressing bullying is placed on the target who is required to report and provide evidence sufficient to prove that the perpetrator's intentions were harmful. Considering the prevalence of underreporting and lack of knowledge about workplace bullying and effective intervention often present, the responsibility on the target to provide sufficient evidence of their experience is likely to result in the target's inability to be successful in a personal grievance.

- *Health and safety legislation* hold employers accountable for failing to prevent bullying under the duty to provide a safe and healthy working environment and safe work systems. This technically makes organisations liable for preventing bullying from occurring in the first place, or subsequently recurring. However, an organisation cannot be held accountable for failing to take all reasonably practical steps to prevent the harm should their current state of knowing about the risk be the cause of their inaction. The limited protection offered by the law's requirement to consider the employer's current state of knowledge potentially lowers the efficacy of the legislation in protecting targets and allows employers to take an apathetic approach to the management of bullying and, thus, continue the invisibility of bullying within the organisation.

- *Criminalising workplace bullying* discourages organisations from viewing bullying as a problem of the organisation and further removes the onus from the organisation to address the root causes of bullying. Hence, although criminalising workplace bullying sends a strong message that bullying will not be tolerated, the message it sends to employers in regard to their organisational obligations enforces the common existing view that bullying is simply a heightened interpersonal conflict to be resolved by the individuals involved. The authors contend that this approach fails to address any of the concerns with existing employment disputes and health and safety legislation and, instead, potentially reinforces common misunderstandings that are inconsistent with our knowledge of bullying.

Blackwood et al (2013) argue that to increase the efficacy of existing health and safety legislation, more information is required around workplace bullying for both organisations and their employees. This information would be in the form of a Code of Practice specific to a jurisdiction that includes information on what workplace bullying consists of, why it goes unreported, what employers should do to prevent it (including developing a policy, consulting employees, training and monitoring) how to respond to incidents, and how it fits within the legislative framework[56].

Caponecchia et al. (2020) used a Delphi process involving experts to develop a taxonomy of workplace bullying interventions[57]. Eleven core intervention types were endorsed: bullying awareness training, coaching, codes of conduct, employee assistance programs and counselling, investigation mediation, policy, skills training and development, system-wide intervention, values statements, local resolution,

organizational redesign. A further six, including mediation, failed to reach consensus among the expert panel. As acknowledged by the authors, although the taxonomy does not assess the evidence base of interventions per se, it is designed to support the development of research into the future and guide organizations in their decision making when implementing interventions[57].

D'Cruz et al (2019) used semi-structured interviews with key stakeholders to examine the role of the Dutch Working Conditions Act as a means of mitigating workplace bullying from the perspective of legislative intention, processes and outcomes[58]. The authors found that the active involvement of the state is a necessary pre-condition for the success of anti-bullying legislation. The presence of legislation signals national intolerance of the issue, indicating that the state recognises workplace emotional abuse as a problem. But this must be followed up with the state's influence in implementation through a strong agency directing and enforcing the law[58]. The Act was amended in 2007 whereby the state deflected responsibility for implementing the law, delegating it to the social partners. The authors note that the decrease in state supervision, administrative backing and financial outlays represents a regressive step, favouring employers and exacerbating the differences between the social partners. The compromising of employee interests translates into fewer and less reliable options for targets of workplace bullying[58].

An American study by Ritzman (2016) outlined a systematic approach that focuses on the organisational subsystem of human resources as it relates to preventing, identifying, and addressing workplace bullying[59]. The author contends that many functions of human resources professionals have substantial bearing on both performance improvement and organizational response to workplace bullying. For example, human resources professionals may be responsible for hiring and terminating employees, processing and administering payroll, training and development of employees, and managing or addressing personnel issues. The author suggests that human resources professionals should look for ethical guidelines within and outside of the organisation to develop a comprehensive and strategic approach to preventing and addressing workplace bulling. By addressing workplace bullying systemically through human resources departments, organisations are focusing on the problem through the department that has a significant bearing on organisational response to workplace bullying[59].

Salin et al (2018) used in-depth interviewing and qualitative data analytic techniques to identify what actions were, in the experience of human resource professionals, best to prevent and intervene in bullying and uncover organizations' motives for engaging in such work[60]. The study was conducted through semi-structured interviews in 14 different countries/regions. The findings indicate that bullying was largely conceptualised as a productivity and cost issue, and that was largely driving efforts to counter bullying. Training and policies were highlighted as preferred means to prevent bullying across countries. The top 3 prevention strategies were: raising awareness; anti-bullying policies/codes of ethics; and, good and constructive leadership. The top 3 secondary interventions were: fact finding/investigations; disciplinary action; and, prompt action. The results indicate that human resource professionals and organisations are concerned with bullying primarily because of the economic costs they associate with the phenomenon. As empirical evidence on the economic costs and effects on productivity are still relatively scarce, further research on the economic costs of bullying should be encouraged in order to provide human resource professionals with the hard evidence for which their organizations seem to be looking[60].

Strandmark and Rahm (2014) developed and implemented an intervention program in collaboration with workplace personnel, to evaluate the process as a vehicle to prevent and combat bullying[61]. The authors used a community-based, participatory approach using individual and focus groups in an aged care and hospital setting. An intervention was developed, including lecturers and reflection groups, which ultimately resulted in an action plan. Focus group interviews at the fourth meeting, after the implementation, showed that employees were more aware of bullying problems; the atmosphere at the workplace improved; the collaboration between and within the group was stronger; and the supervisor worked continuously to prevent and combat bullying. The authors suggest that the anti-bullying program implementation in the workplace achieved some success, but noted that the intervention process was ongoing[61].

Table 2: Included peer-reviewed studies that have examined interventions for workplace bullying

Author (year)	Country	Study design	Sample characteristics	Intervention	Results
Primary prevention interventions					
Benmore (2018)	United Kingdom	Pilot study - quasi-experimental pre-test and post-test comparison	N=32; staff from maternity/gynaecology departments	Stopit - a half day workshop to improve working relationships by reducing undermining bullying and harassment behaviours to improve the clinical and learning environment in three areas relational, institutional and individual	All groups took some benefit, and changed their behaviours, following the workshop. Small sample size impacts on significance. Clear indications that relational and personal objectives were met, no real evidence of institutional change
Chipps (2012)	United States	Pilot study - quasi-experimental pre-test and post-test comparison	N=16; nurses in a hospital setting	A 3-month educational program focused on developing skills for more effective communication in unit conflict situations	Educational intervention in nursing increased awareness of bullying (12% more people reported being targeted by bullying following the educational session
Hutchinson (2012)	Australia	Semi-structured interviews	N=32; public servants involved in the development and implementation of workplace bullying policies	Focus is on workplace bullying and effective prevention policies	Prevailing theorizations and policy definitions emphasize the individual aspects of bullying and overlook the significance of organizational, employment and cultural factors
Lassiter (2018)	United States	A qualitative five-round modified Delphi study	N=17; experts or managers across a range of organisations (business, govt, not for profit)	Research question: What do experts with experience in the area of workplace violence, bullying or intimate partner violence agree constitute the best practices that might be considered when developing a bystander training program?	Three themes emerged: leadership, training, and people involved in the incident; senior management must be committed to lead the way; that victims, targets, and bystanders need to be protected, and confidentiality must be maintained
Mikkelsen (2011)	Denmark	Quasi-experimental, process-oriented research design	N=421; 2 workplaces - business college and a hospital department	A range of interventions were implemented: lectures on bullying, courses in conflict prevention and management, dialogue meetings, the distribution of pamphlets, newsletters and posters as well as steering group meetings.	Results indicate that participants benefited from the interventions, in particular the dialogue meetings and the courses in conflict prevention and management.
Secondary prevention interventions					

Blackwood (2018)	New Zealand	Semi-structured phone interviews	N=34; nurses in a hospital setting	N/A: examined critical points throughout a victim's bullying experience that influence its resolution or outcome	Develop Workplace Bullying Intervention Process Model; seen as a process lending itself to multiple intervention points
D'Cruz (2016)	Netherlands	Open-ended questionnaire developed and administered via SurveyMonkey	N=114,; business school students with current/prior work experience, 57 Australian, 34 Indian, 23 Turkish	N/A: explored target experiences of workplace bullying across cultures	Manifestations of, etiology of and coping with workplace bullying were similar across all three countries, highlighting cultural universals
Kang (2019)	South Korea	A cluster quasi-randomised trial	N=72; hospital nurses, 36 intervention, 37 control	A smartphone application for cognitive rehearsal intervention on workplace bullying and turnover intention	Effective for decreasing nurses' person-related bullying, work-related bullying experiences, and turnover intention; no effects on intimidation-related bullying experiences
Lee (2019)	United States	Survey questionnaire	N=648; 376 Americans, 272 Singaporeans	Authors examined the moderating role of coping strategies in the relationship between exposure to workplace bullying and job attitudes	Coping strategies play a very limited moderator role in the relationship between exposure to workplace bullying and job attitudes
Rossiter (2018)	United Kingdom	Questionnaire-based correlational study	N=222; employees across a wide range of industry sectors	N/A - exploring associations between workplace bullying, social support and burnout (all measured using survey)	Different forms of social support moderated the links between different forms of workplace bullying and different components of burnout.

Tertiary prevention interventions

Mawdsley (2017)	United Kingdom	14 focus groups and interviews - 7 with union officials, 4 with members and 3 with special interest groups	N=85; Members and officials of three large UK trade unions	3 research questions: Does workplace bullying intervention involving third parties conform to the individualisation of the employment contract? Do TPIs deflect attention away from underlying organisational acceptance of bullying? How do TPIs affect targets of workplace bullying?	TPIs individualise bullying allegations and such interventions are further characterised by impotence, injustice and lack of impartiality, serving to deflect bullying claims and exacerbate targets' suffering
Namie (2009)	United States	A multi-methodological typology is introduced and evaluated using case study	Aimed towards psychological consultants to U.S. corporations	A case study illustrates the integration of methodologies and predictors of successful interventions	Workplace bullying consulting is not yet an industry in the US. The topic is still a taboo business topic because addressing it requires a blunt self-appraisal about the organization's role in establishing and maintaining bullying.

Nielsen (2020)	Norway	Survey and linkage to official registry data on medically certified sickness absence	N=10,627; 96 organisations	N/A - exploring associations between workplace bullying and support (measured using survey) and sickness absence (measured using registry)	The findings suggest that social support, and especially supervisor support, is beneficial with regard to reducing the negative impact of workplace bullying on health and work ability of those exposed
Saam (2010)	Germany	A qualitative design with semi-structured interviews	N=18; consultants who intervene in organizations seeking support to resolve cases of workplace bullying	Focus of study was investigating which intervention strategies are applied by these consultants	It is found that consultants apply conflict moderation or mediation, coaching, and/or organization development. Authors propose a multilevel approach that considers interventions at the dyadic, group and organisational level.

Combination interventions

Blackwood (2013)	New Zealand	Observation, critical analysis	Australian and New Zealand laws	N/A: an analysis of 3 approaches: the rehabilitative approach of employment disputes legislation; the preventative approach of health and safety legislation; and specific legislation to criminalise workplace bullying	Authors argue for occupational health and safety legislation supported by a Code of Practice that encourages organisations to take a preventive approach to workplace bullying
Caponecchia (2020)	Australia	Delphi process - surveys	N=90; international experts - academics and practitioners	N/A: develops a taxonomy of organisational-level workplace bullying intervention types	A core set of 11 intervention types were endorsed - investigation, codes of conduct, policy, employee assistance program and counselling, bullying awareness training, coaching, system-wide intervention, skills training and development, values statements, local resolution, organizational redesign
D'Cruz (2019)	Netherlands	Semi-structured phone interviews	N=33; participants involved in creating, influencing and executing the Dutch Working Conditions Act	Examined the role of the Act as a means of mitigating workplace bullying from the perspective of legislative intention, processes and outcomes	The findings indicate that state involvement, organisational commitment and collective action are all important contributors in reducing workplace bullying, the role of the nation-state is of critical importance, notwithstanding initiatives by employers.
Ritzman (2016)	United States	Outlines a systematic approach that focuses on the organizational subsystem of human resources as it relates to preventing, identifying, and addressing workplace bullying		The article outlines the interventions and policies utilised by human resource professionals to alleviate and manage bullying	Human resource professionals play a vital role in applying anti-bullying policies and performance improvement interventions

Salin (2018)	Multiple	In-depth interviewing and qualitative data analytic techniques	N=214; 14 different countries	Study sought to identify what actions were, in the experience of human resource professionals, best to prevent and intervene in bullying and uncover organizations' motives for engaging in such work	Bullying was largely conceptualized as a productivity and cost issue, and that was largely driving efforts to counter bullying. Training and policies were highlighted as preferred means to prevent bullying across countries.
Strandmark (2014)	Sweden	Community-based, participatory approach using individual and focus groups	3 workplaces: 2 eldercare wards at nursing homes, 1 geriatric psychiatric ward at a hospital	4-step intervention program including lecturers and reflection groups, which ultimately resulted in an action plan	Focus group interviews post implementation showed that employees were more aware of bullying problems; the atmosphere at the workplace improved; the collaboration between and within the group was stronger; and the supervisor worked continuously to prevent and combat bullying

Reports related to the impacts of, and interventions for, workplace bullying

Sheehan et al (2001)[65] use a range of data sources and assumptions to provide an estimate of workplace bullying to businesses of somewhere between $17 and $36 billion per annum[65]. A 2010 Productivity Commission reports cites this estimate and provides a good narrative of costs included in the original Sheehan et al (2001) conference paper. Cost categories include: direct, indirect, and other costs[66].

- *Direct costs* result from absenteeism, staff turnover, legal and compensation costs, and redundancy and early retirement payouts. Hidden direct costs include management time consumed in addressing claims for bullying, investigating allegations of bullying through formal grievance procedures and workplace support services such as counselling.

- *Indirect costs* to businesses include declines in labour productivity and intra sector opportunity costs. Intra sector costs of bullying include the costs of victims not taking up training or promotion opportunities due to stress; negative impacts on worker innovation and creativity which reduces company growth and profits; and, the negative impact of publicised cases of bullying on the brand name and goodwill of a company.

- *Other costs* include the loss of productivity resulting from reduced performance of victims who continue to work; replacing victims with initially less experienced and so less productive staff; and, loss or absenteeism of co-workers. Other costs to the economy include public sector costs such as the health and medical services needed to treat bullied individuals; income support and other government benefits provided to victims of bullying who become unemployed; and the legal costs associated with pursuing formal complaints.

Butterworth et al (2013) used data from *The Work Wellbeing Project* to examine the relationship between work characteristics, wellbeing, depression and workplace bullying among 32–36- year-old workers in Canberra and Queanbeya[67]. A total of 1,286 respondents completed an online survey; 546 completed a face-to-face interview. Overall, just over 5% of respondents reported that they were currently experiencing bullying in their workplace, and a further 16% had previously been bullied in their current workplace and 24% experienced bullying in a previous workplace. Workplace bullying was strongly associated with increased risk of depression symptoms and double the risk of suicidal ideation[67]. The authors suggest that adequate support from colleagues and managers and fair reward for

effort may help to prevent the occurrence or minimise the consequences of depression and workplace bullying[67].

Potter et al (2016) used data from the 2014/15 Australian Workplace Barometer (AWB)[68] project to examine bullying and harassment in Australian workplaces[69]. Using the international bullying definition[70], 9.7% of Australian workers reported they had experienced bullying in the past six months; using the Safe Work Australia definition[71] 9.4% reported workplace bullying in the past six months. In 62.3% of cases, the bully was a supervisor. The authors found that bullying was related to emotional exhaustion, psychological distress and depression. In relation to work outcomes, it was significantly negatively associated with job satisfaction and work engagement, and positively with intention to leave the workplace. It was reported that psychosocial safety climate (PSC) was a leading indicator for the occurrence of bullying. The relationship between PSC and bullying, after controlling for baseline levels of bullying, was explained by job design factors — low PSC led to high emotional demands and low job control which led to bullying. Interventions to reduce bullying and harassment should focus on improving PSC; establish systems to enable upwards and downwards communication about bullying; develop mechanisms to monitor PSC; provide education and training regarding appropriate supervisory behaviours, and, establish policies or guidelines for respectful behaviour, particularly toward women and people from diverse ethnic backgrounds[69].

Safe Work Australia provide regular updates of Indicators from accepted workers' compensation claims in regard to psychosocial health and safety and bullying in Australian workplaces[72]. The report acknowledges that workers exposed to adverse workplace design and culture are at greater risk of developing a psychological injury caused by mental stress[72]. Latest data suggests that, in 2016-17, there were 50 serious claims processed for work-related harassment and bullying in the construction industry; each claim incurred 18.5 weeks off work (medium) with compensation payment per clam equivalent to $33,700 (medium). This compares with all accepted claims (i.e., physical and psychological) that resulted in 0.8 weeks off work (medium) with compensation payment per clam equivalent to $2,700 (medium)[72]. For information is provided in Appendix 4.

Safe Work Australia have developed a guide for preventing and responding to workplace bullying[71]. The report outlines a range of impacts of workplace bullying to individuals and businesses. For individuals, the impacts may include one or more of the following: distress, anxiety, panic attacks or sleep disturbance; physical illness, for example muscular tension, headaches, fatigue and digestive problems; loss of self-esteem and self-confidence;

feelings of isolation; deteriorating relationships with colleagues, family and friends; negative impact on work performance, concentration and decision making ability; depression, and thoughts of suicide. For businesses, the impacts may include high staff turnover and associated recruitment and training costs; low morale and motivation; increased absenteeism; lost productivity; disruption to work when complex complaints are being investigated; costs associated with counselling, mediation and support; costly workers' compensation claims or legal action, and damage to the reputation of the business. The report notes that the risk of workplace bullying can be minimised by taking a pro-active approach that involves early identification of unreasonable behaviour and situations likely to increase the risk of workplace bullying occurring; implementing control measures to manage the risks, and monitoring and reviewing the effectiveness of the control measures[71].

Safe Work Australia developed a worker's guide to dealing with workplace bullying[73]. The report notes that under Work and Safety laws, while at work, workers must take reasonable care that their behaviour does not adversely affect the health and safety of other persons. Workers must also comply, so far as is reasonably practicable, with any reasonable instruction given by the person conducting the business or undertaking and co-operate with reasonable policies and procedures that the worker has been notified of, such as a workplace bullying policy. The guide is intended to help workers determine if workplace bullying is occurring and how to prevent and deal with it. It provides information for workers who may be experiencing or witnessing workplace bullying and for those who have had a bullying report made against them[73].

Ross et al (2020) estimated the prevalence of Queensland apprentices (N=1,483) who have experiencing bullying, as well as to obtain a snapshot of apprentices' mental health and well-being, their perceptions of quality of supervision, suicide awareness and literacy, and experience of, and exposure to suicidal behaviours[74]. The findings showed that 27% of apprentices reported some experience of bullying in the past six months; 30% had high levels of exposure to suicidal behaviours; 13% had high levels of psychological distress; and, nearly 30% had poor quality of life. Consultation was undertaken with industry representatives to gain their perspectives on these findings. Based on the results of the survey and industry consultation, the authors noted that a response to the issues of bullying, mental health and suicidal behaviours in apprentices is urgently required across various levels. Several recommendations were made including the development and evaluation of an industry-wide onsite intervention program focusing on supervisors, trade workers and

apprentices to raise awareness of bullying as an issue and highlight the negative consequences of bullying in the industry[74].

Conclusion

In the course of a few decades, workplace bullying has moved from a being a taboo subject in organisational life and a non-existent topic in the scientific literature to becoming a well-established and highly recognised social stressor in both research and in legislation[75]. As a result, the evidence regarding workplace bullying is improving. A number of reviews have synthesised the literature on: workplace bullying risk factors and outcomes[3]; the impact of methodological moderators on prevalence rates of workplace bullying[4]; outcomes of exposure to workplace bullying[6]; workplace bullying and mental health[7]; workplace bullying and sickness absence[8]; and, workplace bullying and suicide ideation/thoughts and behaviour[9]. Reviews have also been undertaken of interventions related to workplace bullying and incivility[35]; quasi-experimental longitudinal studies on anti-bullying interventions[39]; and, the effectiveness of workplace interventions to prevent bullying in the workplace[41]. It is widely acknowledged that the bulk of the evidence on workplace bullying comes from Scandinavian countries where researchers have access to large sample sizes that are representative of the entire workforce.

Studies that have investigated bullying generally do so from the perspective of targeted employees rather than from the perspectives of the perpetrators or the organisation. Exposure to bullying has been assessed using (a) the respondents' overall feeling of being victimised by bullying (the self-labelling method), (b) the respondents' perception of being exposed to a range of specific bullying behaviour (the behavioural experience method), and, (c) a combination of the two methods. Based on meta-analysis of prevalence rates, about 15% of employees are exposed to some level of workplace bullying[4]. In Australia, results from the Australian Workplace Barometer project suggest that up to 10% of Australian workers had experienced bullying in the past six months[68]. An Australian study of construction industry apprentices reported prevalence rates of workplace bullying of 27%[74]; while another Australian study of Fly In Fly Out workers reported prevalence rates of workplace bullying at 56%[18]

The current report has reviewed the evidence on workplace bullying with a focus on the construction or mining industry. The first review of the impacts of workplace bullying identified 24 peer-reviewed studies, 4 of which were Australian and 3 were focussed on the construction or mining industry. The second review of workplace bullying interventions

identified 20 peer-reviewed studies, 2 of which were Australian. Several unpublished reports were also identified and provided useful insights into impacts of, and interventions for, workplace bullying. Safe Work Australia have developed several good resources directly related to bullying in the workforce[71-73].

The evidence from the literature is clear, workplace bullying has a significant impact on employees and employers. For workers, there is evidence to suggest that workplace bullying could result in one or more of the following: distress, anxiety, panic attacks or sleep disturbance; physical illness; loss of self-esteem and self-confidence; feelings of isolation; deteriorating relationships with colleagues, family and friends; negative impact on work performance, concentration and decision making ability; depression, and thoughts of suicide. For businesses, there is evidence to suggest that workplace bullying could result in high staff turnover and associated recruitment and training costs; low morale and motivation; increased absenteeism; lost productivity; disruption to work when complex complaints are being investigated; costs associated with counselling, mediation and support; costly workers' compensation claims or legal action, and damage to the reputation of the business.

An interesting observation from the literature is a lack of research related to understanding the economic cost of workplace bullying. Only one unpublished study had estimated the economic costs to an organisation. Sheehan et al. (2001) developed a model and used a range of data sources, predominantly international, and assumptions to provide an estimate of bullying to businesses of somewhere between $17 billion and $36 billion per annum[65]. Although this costing model is not published and based on out of date data, It is still being cited [66].

Workplace bullying has been identified as a hazard and requires organisational and community leadership to reduce incidence and impact. Overall, the findings describe limited evidence for persuasion-based interventions (i.e., workshops, awareness campaigns). Additionally, some evidence suggests there are potential harms to individuals for mitigation or counselling incorporating the bully and victim. Based on the literature, there are three types of interventions: primary interventions targeting the factors that buffer an individual from the negative effects of bullying (either as the victim or a bystander) including resilience, perceived control over the situation, coping strategies, and social support (from sources outside of the workplace); secondary interventions targeting workplace factors including autonomy-building workplace culture, supportive management styles, and social support (within the workplace); and tertiary interventions focus on managing outcomes of bullying (once it has occurred) and should be tailored for each individual's needs and the nuances

of the situation. The more control the victim/bystander feels that they have in the tertiary intervention, the better the overall outcomes.

Ideally, a workplace will have processes in place to account for each of these types of interventions that can be adapted to the individual and their circumstances. Notably, workplace interventions are most effective when conducted by a respected person already integrated within the workplace community (as opposed to an outsider). As such, a proposed option might be to consider an 'Ambassador' model intervention approach, in which respected workplace leaders are put in place to coordinate the approaches to bullying and initiate and strengthen workplace culture and social support that reduce the prevalence of bullying. Given the need for this to be a sustained change, it would be important to integrate this within the training/apprenticeship models within the industry.

Safe Work Australia note that health and safety risks in a workplace must be eliminated so far as is reasonably practicable. The risk of workplace bullying can be minimised by taking a pro-active approach that involves early identification of unreasonable behaviour and situations likely to increase the risk of workplace bullying occurring; implementing control measures to manage the risks, and monitoring and reviewing the effectiveness of the control measures[71].

Legislation also exists to protect workers from bullying but as Blackwood et al (2013) notes, not only do the current legislation and government mechanisms appear to have weaknesses in their efficacy in protecting targets of bullying, organisations are being shielded by protections within the legislation and an ensuing onus on the victim to provide the organisation with sufficient information about the complaint. Such protection is not only unhelpful, but does not protect targets from harm or the organisation from harm-related costs[56]. Blackwood et al (2013) argues that to increase the efficacy of existing health and safety legislation more information is required around workplace bullying for both organisations and their employees[56]. This information would be in the form of a Code of Practice specific to a jurisdiction that includes information on what workplace bullying consists of, why it goes unreported, what employers should do to prevent it (including developing a policy, consulting employees, training and monitoring) how to respond to incidents, and how it fits within the legislative framework. Safe Work Australia have progressed this initiative, but more work is required.

In their methodological review of the literature on workplace bullying Neall and Tuckey (2014) concluded that the research within the field is hampered by: 1) an overuse of self-report surveys, 2) a reliance on single-source data, 3) analyses at the individual level rather

than at a group or organisational level, 4) a one-sided focus on the antecedents and outcomes of bullying rather than on mechanisms and conditions, 5) an overuse of field/survey studies, 6) a lack of information about perpetrators, and 7) the use of non-representative sampling procedures[76]. In order to acquire valid knowledge about the effectiveness of interventions, researchers should follow well-established principles for intervention research that make it possible to evaluate both the process and the effects. This includes the use of both intervention and control groups in studies. Further, the intervention studies need to be designed to examine directly how and why the interventions bring about change and why they sometimes fail, as well as a process evaluation that includes a close examination of the psychological and organizational mechanisms that hinder and facilitate desired intervention outcomes[75].

Recommendations

- Use the Australian Building and Construction industry blueprint as a platform to leverage funds to develop products, services or processes related to workplace bullying that will help the industry engage in the blueprint and promote mentally healthier workplaces.
- Undertake a comprehensive assessment of the economic costs of workplace bullying to the building and construction industry;
- Develop a better understanding of the prevalence of bullying in the building and construction industry by adding the Negative Acts Questionnaire (Revised) to all MATES in Construction training programs, case management and, where appropriate, referral agencies;
- Develop, implement and evaluate a purposely designed survey to better understand the prevalence of bullying, the causes of bullying as well as the role of attitudes and processes within the building and construction industry;
- Develop, implement and evaluate an industry-wide onsite intervention program focusing on supervisors, trade workers and apprentices to raise awareness of bullying as an issue and highlight the negative consequences of bullying in the industry – this could be in the form of 'Ambassador' model intervention approach, in which respected workplace leaders are put in place to coordinate the approaches to bullying and initiate and strengthen workplace culture and social support that reduce the prevalence of bullying;
- Conduct a comprehensive data linkage study to examine the impact of MATES in Construction in reducing the incidence of workers compensation claims and suicidal behaviour related to workplace bullying;

- Undertake a return on investment analysis of workplace interventions to reduce the incidence of bullying, workers compensation claims and suicidal behaviour among building and construction industry workers;
- Consider engaging with Scandinavian experts to inform further research (such as Ståle Einarsen (University of Bergen, Norway) or Morten Birkeland Nielsen (National Institute of Occupational Health, Norway).

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Appendix 1: Model for workplace bullying
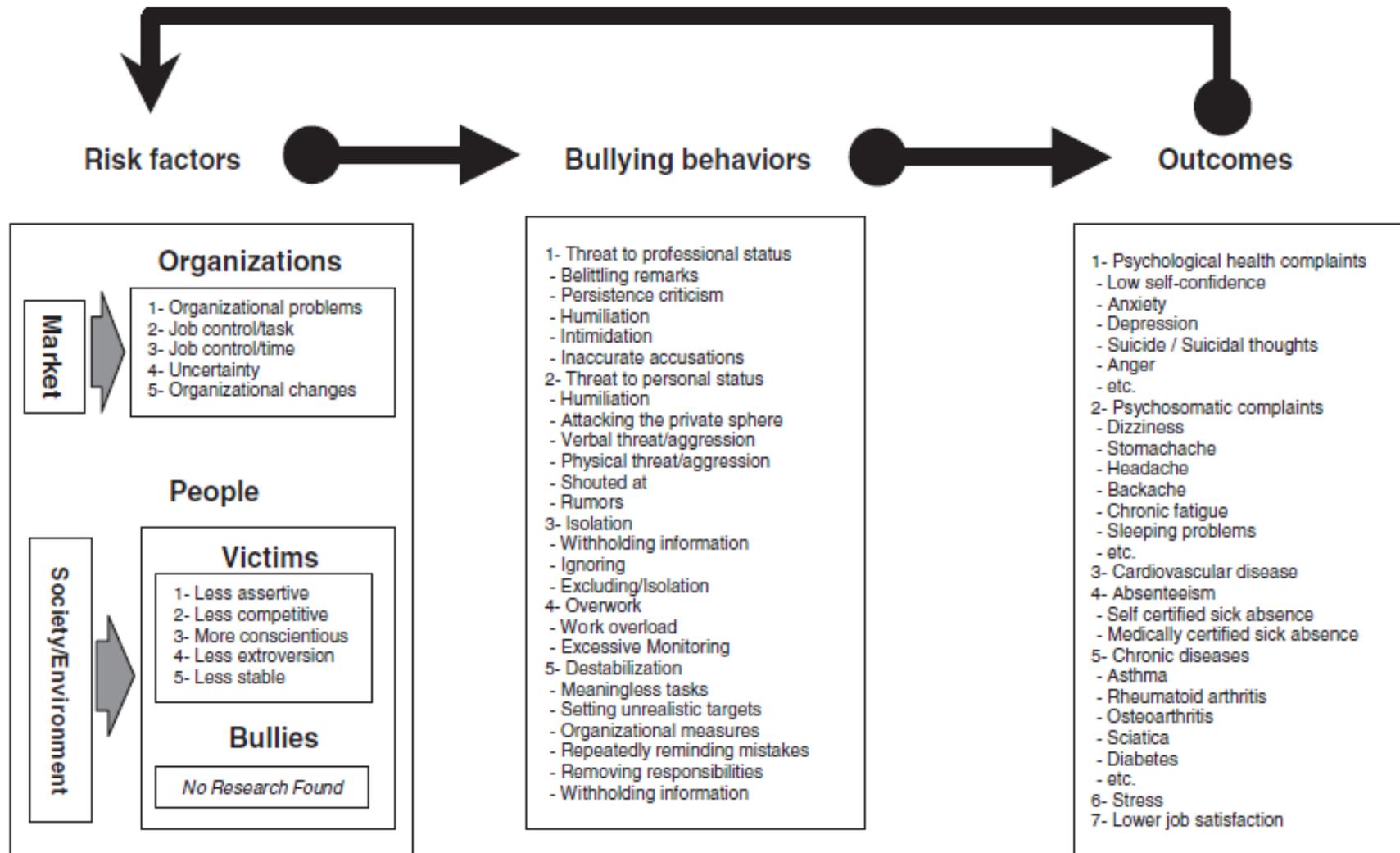
Source: Moayed et al (2006)[3]

Appendix 2: Examples of the self-labelling method and the behavioural experience method

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Self-labelling method as presented by Einarsen and Skogstad (1996, pp. 190–191)

'Bullying takes place when one or more persons systematically and over time feel that they have been subjected to negative treatment on the part of one or more persons, in a situation in which the person(s) exposed to the treatment have difficulty in defending themselves against them. It is not bullying when two equally strong opponents are in conflict with each other'

According to this definition, have you been subjected to bullying at the workplace during the last 6 months

1. No
2. Yes, once or twice
3. Yes, now and then
4. Yes, about once a week
5. Yes, many times a week

Behavioural experience method. Sample items from the NAQ – Revised (Einarsen *et al.*, 2009)

The following behaviours are often seen as examples of negative behaviour in the workplace. Over the last 6 months, how often have you been subjected to the following negative acts at work?

Please circle the number that best corresponds with your experience over the last 6 months

	Never	Now and then	Monthly	Weekly	Daily
1. Being humiliated or ridiculed in connection with your work	1	2	3	4	5
2. Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	1	2	3	4	5
3. Persistent criticism of your work and effort	1	2	3	4	5
4. Being the subject of excessive teasing and sarcasm	1	2	3	4	5

Source: Nielsen et al (2010)[4]

Appendix 3: Theoretical model showing the possible relationships between the outcomes of workplace bullying
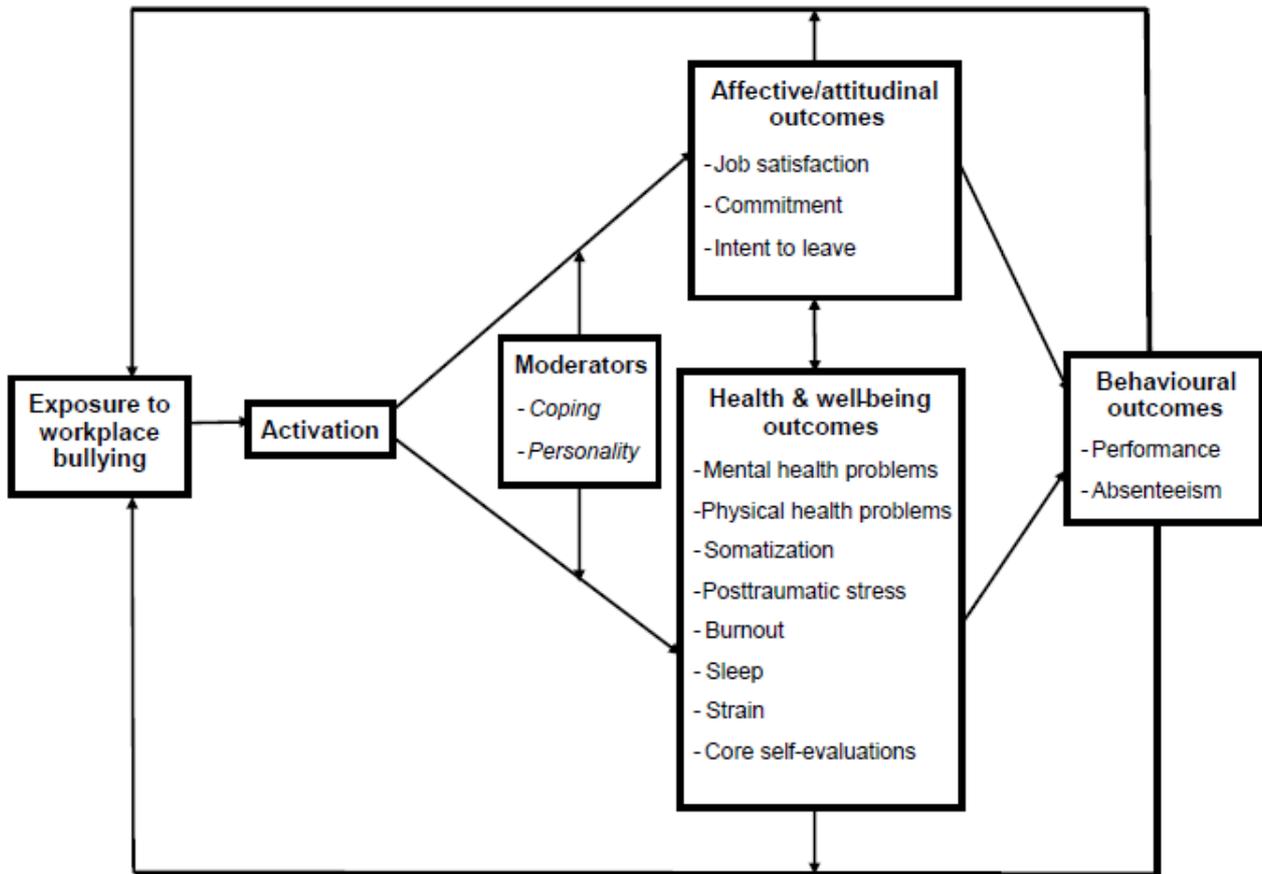
Source: Nielsen & Ståle Einarsen (2012)[6]

Appendix 4: Compensation data for work related harassment and/or workplace bullying, construction industry and all industries, 2008-09 and 2017-18

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Construction industry										
No. of serious claims	25	25	40	45	45	55	40	35	40	50
Medium time lost (weeks)	13.2	8	25.4	31	24.8	33.4	15.7	33.2	15.4	18.5
Medium compensation paid	$18,800	$13,000	$30,400	$31,400	$64,300	$84,700	$37,300	$52,100	$45,300	$33,700
All industries										
No. of serious claims	1005	1360	1715	1850	1605	1470	1345	1370	1495	1860
Medium time lost (weeks)	12.4	14.6	15.7	17.6	15.2	17.5	17	14.4	18	17.5
Medium compensation paid	$22,700	$25,700	$28,600	$21,900	$31,600	$33,100	$34,100	$33,900	$35,900	$31,600

Source: Safe Work Australia